

TREATMENT OF DAIRY FARM WASTEWATER WITH CONSTRUCTED WETLANDS

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ABSTRACT - Treatment of dairy farm wastewater with constructed wetlands

Constructed wetlands can provide an inexpensive and easily operated means of removing organic matter, suspended solids, nutrients and micro-organisms from agricultural wastewater. At dairy farms wastewater is produced from dairy wash water, runoff from soiled yard areas and in some cases silage effluent. Typically, such wastewater has a high biochemical oxygen demand (BOD), contains solids, and nitrogen-based compounds such as ammonia, and phosphorus. The wastewater characteristics show a great variability. This variability is not a function of animal numbers, type of milking system, or any other parameter. This paper summarizes the most important design criteria used for vertical subsurface flow constructed wetlands, based on experiences in Flanders.

Keywords: constructed wetlands, dairy wastewater, Flanders